

Serial No.: 10/504,394
Docket No.: 09792909-5972
Amendment dated December 21, 2007
Reply to the Office Action of July 26, 2007

In the Claims

This listing of claims replaces all prior versions and listings of claims:

1. (Currently Amended) A system for recycling a used plastic material as a resin material, said system comprising:

~~(a) means for sorting~~ a sorter which sorts said used plastic materials material by purpose of recycling;

~~(b) means for crushing and melting~~ a device which crushes and melts said used plastic material sorted;

~~(c) reviving means for regaining~~ a reviver which regains a desired property; and

~~(d) means for measuring~~ a measurer which measures a physical property of a sample sorted for evaluation from a reclaimed plastic revived; and

~~(e) indicating~~ an indicator which indicates to said reclaimed plastic revived said measured property as recycle history information.

2. (Currently Amended) ~~A~~The recycling system according to claim 1, wherein said ~~means for sorting used plastic materials by purpose of recycling need~~ sorter does not separate an impurity ~~as long as if a predetermined~~ physical property required for a reclaimed plastic is present ~~satisfied~~.

3. (Currently Amended) ~~A~~The recycling system according to claim 1, wherein said ~~means for sorting used plastic materials by purpose of recycling~~ sorter does not separate resins which are compatible with each other.

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4. (Currently Amended) ~~A-The~~ recycling system according to claim 1, wherein said ~~means for sorting used plastic materials~~ sorter includes ~~measurement means for a second measurer which measures~~ a transparent resin portion in a plastic waste material containing a transparent resin.

5. (Currently Amended) ~~A-The~~ recycling system according to claim 4, further comprising:

~~wherein~~ a resin waste material containing said transparent resin is a housing for magnetic recording product, ~~and~~

wherein said transparent resin portion is a window material or a flange in said housing.

6. (Currently Amended) ~~A-The~~ recycling system according to claim 1, wherein said ~~means for sorting used plastic materials separates~~ sorter includes a separator which separates a resin containing an antistatic agent.

7. (Currently Amended) ~~A-The~~ recycling system according to claim 6, wherein said resin containing ~~an~~ said antistatic agent is a resin in a lid portion of a magnetic recording product.

8. (Currently Amended) ~~A-The~~ recycling system according to claim 1, wherein said property regained by said reviver ~~reviving means~~ is at least one property selected from the group consisting of density, water absorption, coefficient of expansion, tensile strength, elongation at breakage, flexural strength, flexural modulus, Izod impact strength, notched Izod impact strength, heat deformation temperature, flame retardancy, shrinkage factor, volume resistance, permittivity, weld elongation at breakage and tensile strength, ~~MFR~~ (melt flow rate), hue, degree of transparency, and texture.

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9. (Currently Amended) A The recycling system according to claim 1, wherein said ~~reviver~~ ~~reviving means~~ is at least one ~~means~~ selected from the group consisting of changing structure by an oxidation and reduction, addition, or elimination reaction, increasing or reducing molecular weight, controlling physical property by an additive, controlling by increasing or reducing content of a constituent or changing composition, and controlling by blending resins.

10. (Currently Amended) A The recycling system according to claim 1, wherein said measurement of a physical property of said reclaimed plastic includes a measurement of impact strength and/or hue.

11. (Currently Amended) A The recycling system according to claim 1, wherein said measurement of a physical property of said reclaimed plastic includes a measurement of the content of a rubber component in said reclaimed plastic.

12. (Currently Amended) A The recycling system according to claim 1, wherein said used plastic material is a plastic material salvaged under predetermined ~~specific~~ conditions.

13. (Currently Amended) A The recycling system according to claim 1, wherein said used plastic material is at least one resin selected from the group consisting of a styrene resin, a polycarbonate resin, and an alloy of a polycarbonate resin and an ~~ABS~~ acrylonitrile-butadiene-styrene resin.

14. (Currently Amended) A The recycling system according to claim 1, wherein said used plastic material is a plastic material salvaged from a used magnetic recording product.

15. (Currently Amended) A The recycling system according to claim 14, wherein said used plastic material is a mixture of an ~~ABS (acrylonitrile/butadiene/styrene)~~ acrylonitrile-butadiene-styrene resin and an ~~AS (acrylonitrile/styrene)~~ acrylonitrile-styrene resin or a mixture

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of a ~~HIPS~~ (high impact polystyrene) resin and a ~~PS~~ (polystyrene) resin.

16. (Currently Amended) ~~A~~The recycling system according to claim 14, wherein said used plastic material is a mixture of an ~~ABS (acrylonitrile/butadiene/styrene)~~ acrylonitrile-butadiene-styrene resin and an ~~AS (acrylonitrile/styrene)~~ acrylonitrile-styrene resin salvaged from a used magnetic recording product for broadcasting station.

17. (Currently Amended) A recycling system according to claim 14, further comprising:

~~wherein said system is preliminarily provided with a means for erasing~~ an eraser to erase information recorded on said used magnetic recording product.

18. (Currently Amended) ~~A~~The recycling system according to claim 1, wherein said used plastic material contains an antistatic agent.

19. (Currently Amended) A plastic material containing a reclaimed plastic obtained by a system for recycling a used plastic material as a resin material, wherein said recycling system comprises:

~~(a) means for sorting~~ a sorter which sorts said used plastic materials material by purpose of recycling;

~~(b) means for crushing and melting~~ a device which crushes and melts said used plastic material sorted;

~~(c) reviving means for regaining~~ a reviver which regains a desired property;

~~(d) means for measuring~~ a measurer which measures a physical property of a sample sorted for evaluation from a reclaimed plastic revived; and

~~(e) indicating~~ an indicator which indicates to said reclaimed plastic revived said measured property as recycle history information.

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20. (Currently Amended) An ~~ABS (acrylonitrile/butadiene/styrene)~~ acrylonitrile-butadiene-styrene resin ~~containing an ABS resin~~ obtained by a system for recycling a used plastic material as a resin material, wherein said recycling system comprises:

~~(a) means for sorting~~ a sorter which sorts said used plastic materials material by purpose of recycling;

~~(b) means for crushing and melting~~ a device which crushes and melts said used plastic material sorted;

~~(c) a reviving means for regaining~~ a reviver which regains a desired property;

~~(d) means for measuring~~ a measurer which measures a physical property of a sample sorted for evaluation from a reclaimed plastic revived; and

~~(e) indicating~~ an indicator which indicates to said reclaimed plastic revived said measured property as recycle history information.

21. (Currently Amended) A polycarbonate resin containing a polycarbonate resin obtained by a system for recycling a used plastic material as a resin material, wherein said recycling system comprises:

~~(a) means for sorting~~ a sorter which sorts said used plastic material ~~materials~~ by purpose of recycling;

~~(b) means for crushing and melting~~ a device which crushes and melts said used plastic material sorted;

~~(c) reviving means for regaining~~ a reviver which regains a desired property;

~~(d) means for measuring~~ a measurer which measures a physical property of a sample sorted for evaluation from a reclaimed plastic revived; and

~~(e) indicating~~ an indicator which indicates to said reclaimed plastic revived said measured property as recycle history information.

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22. (Currently Amended) A resin shaped article containing an ~~ABS~~
(~~acrylonitrile/butadiene/styrene~~) acrylonitrile-butadiene-styrene resin comprising an ~~ABS~~
acrylonitrile-butadiene-styrene resin obtained by a system for recycling a used plastic material
as a resin material, wherein said recycling system comprises:

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~~(a) means for sorting a sorter which sorts said used plastic materials material~~ by purpose of recycling;

~~(b) means for crushing and melting a device which crushes and melts said used plastic material sorted;~~

~~(c) reviving means for regaining a reviver which regains a desired property; and~~

~~(d) means for measuring a measurer which measures a physical property of a sample sorted for evaluation from a reclaimed plastic revived; and~~

~~(e) indicating an indicator which indicates to said reclaimed plastic revived said measured property as recycle history information.~~

23. (Currently Amended) A resin shaped article containing a polycarbonate resin comprising a polycarbonate resin obtained by a system for recycling a used plastic material as a resin material, wherein said recycling system comprises:

~~(a) means for sorting a sorter which sorts said used plastic materials material~~ by purpose of recycling;

~~(b) means for crushing and melting a device which crushes and melts said used plastic material sorted;~~

~~(c) reviving means for regaining a reviver which regains a desired property; and~~

~~(d) means for measuring a measurer which measures a physical property of a sample sorted for evaluation from a reclaimed plastic revived; and~~

~~(e) indicating an indicator which indicates to said reclaimed plastic revived said measured property as recycle history information.~~

24. (Currently Amended) ~~A~~The resin shaped article according to claim 22 or 23, wherein said article is a magnetic recording product.

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25. (Currently Amended) A method for reprocessing a used acrylonitrile-butadiene-styrene ~~ABS-resin (A)~~, said method comprising:

separating from a used product ~~an~~ the used acrylonitrile-butadiene-styrene ~~ABS~~ (acrylonitrile/butadiene/styrene) resin in an independent form or in ~~the~~ a form of a mixture with another resin to yield a separated acrylonitrile-butadiene-styrene resin, ~~and~~

incorporating into said ~~used~~ separated acrylonitrile-butadiene-styrene ~~ABS-resin (A)~~ separated-an unused acrylonitrile-butadiene-styrene ~~ABS-resin (B)~~ and/or another used acrylonitrile-butadiene-styrene ~~ABS-resin (C)~~ to improve a physical property of said used separated acrylonitrile-butadiene-styrene ~~ABS-resin (A) in physical property to yield a reclaimed plastic~~;

appending recycle history information including the physical property to said reclaimed plastic.

26. (Currently Amended) ~~A~~ The reprocessing method according to claim 25, wherein the mixture of the used acrylonitrile-butadiene-styrene ~~an ABS (acrylonitrile/butadiene/styrene)~~ resin ~~is separated in the form of a mixture with an AS (acrylonitrile/styrene)~~ and the another resin includes an acrylonitrile-styrene resin from said used product.